

LOGGED BY S. McLandrich	BEGIN DATE 12-4-07	COMPLETION DATE 12-4-07	BOREHOLE LOCATION (Lat/Long or North/East and Datum) N2120702.98 / E5996074.595 (NAD83)	HOLE ID MPTNB-R1
DRILLING CONTRACTOR Gregg Drilling and Testing, Inc.	BOREHOLE LOCATION (Offset, Station, Line) Offset 89ft R Sta 64+58 NB Alignment		SURFACE ELEVATION 10.956 ft (NAVD88)	
DRILLING METHOD Mud Rotary	DRILL RIG Failing 1500		BOREHOLE DIAMETER 5 in.	
SAMPLER TYPE(S) AND SIZE(S) (ID) MC (2.4"), SPT (1.4"), Grab, Shelby (2.87"), Pitcher (2.87")	SPT HAMMER TYPE Automatic, 140 lbs., 30-inch drop		HAMMER EFFICIENCY, ERI 72.8%	
BOREHOLE BACKFILL AND COMPLETION Neat Cement Grout backfill	GROUNDWATER DURING DRILLING READINGS 7		AFTER DRILLING (DATE) TOTAL DEPTH OF BORING 59 ft	

ELEVATION (ft)	DEPTH (ft)	Material Graphics	Description	Sample Location	Sample Number	Blows per 6 In	Blows per Foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		CLAYEY SAND with GRAVEL (SC), loose, dark grayish brown, dry, fine to coarse, GRAVEL is angular to subrounded. [FILL]		S1										
8.96	2		1.5', grades moist with increase in CLAY content.		S2	6 6 7	13	100							
6.96	4		3.5', piece of brick.		S3	2 3 6	9	89		12.6	114.3				PA
4.96	5		4.8', ash.												
2.96	7		7.0', grades wet.												
0.96	8		Poorly graded SAND with SILT (SP-SM), very loose, dark brown, moist, fine, mixed with pockets of dark gray organic CLAY, CLAY is soft.		S4	4 2 3	5	100							
	9		Poorly graded SAND (SP), very loose, dark brown, moist, fine.		S5	0 0 1	1	100							
	10		9.0', grades dark gray.												
	11		Grades with shell fragments and pieces of GRAVEL.												
-1.04	12		SANDY Fat CLAY (CH), soft, dark gray, wet, with roots and plant material, SAND is very fine, sulfuric odor detected. [SANDY BAY MUD]												
-3.04	13		Poorly graded SAND with CLAY (SP-SC), dark bluish gray, wet, fine to medium, with organic odor. [MARINE SAND]		U6		100 psi	75							PA
-5.04	15						300 psi								
-7.04	17		Grades with shell fragments.												
	18		Fat CLAY (CH), soft, olive gray, wet. [BAY MUD]		S7	0 0 1	1	100							
	19		SANDY Fat CLAY (CH), soft, olive gray, wet. [SANDY BAY MUD]												
-9.04	20		Fat CLAY (CH), soft, olive gray, wet, with soft shell fragments.		S8	1 2 6	8	100							
	21		CLAYEY SAND (SC), loose, olive brown, wet, fine to medium, with trace of fine GRAVEL. [MARINE SAND]							22.2					PA
-11.04	22		Poorly graded SAND with SILT (SM), medium dense, dark yellowish brown, wet, fine, with trace fines. [COLMA SAND]												
-13.04	23				S9	15 22 32	54	100		24.2	128.5				PA
	24				S10		31	100							

(continued)



Department of Transportation
Division of Engineering Services
Geotechnical Services

REPORT TITLE
BORING RECORD

DIST. 4 COUNTY S.F. ROUTE 101 POSTMILE 8.3/9.4

HOLE ID

MPTNB-R1
EA 163701

PROJECT OR BRIDGE NAME
Doyle Drive Replacement Project

BRIDGE NUMBER 34-0163R PREPARED BY T. Carroll

DATE 11-3-08

SHEET 1 of 3

Figure

ELEVATION (ft)	DEPTH (ft)	Material Graphics	Description	Sample Location Sample Number	Blows per 6 In	Blows per Foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
-15.04	25		Poorly graded SAND with SILT (SM), medium dense, dark yellowish brown, wet, fine, with trace fines. [COLMA SAND]	X	10									
	26				13									
	27				18									
-17.04	28		Grades dense, dark yellowish brown, and wet.	X S11	16	71	100							
	29				30									
	30			X S12	41	52	100							
	31				17									
-19.04	32				24									
	33		Poorly graded SAND with CLAY (SP-SC), dense, dark yellowish brown, moist, fine, with iron-oxide mottling.	X S13	30	63	100		22.8	131.3			PA	
	34				30				21.4	131.6	DS = 1.818			
-23.04	35		Grades olive brown.	X S14	6	33	100		20.7	132.3	DS = 2.4			
	36				12				21.2	131.6	DS = 2.838			
	37				21									
-25.04	38		Poorly graded SAND (SP), dense, light yellowish brown, moist, fine, slight iron-oxide staining.											
	39		37.5', grades with slight cementation.	X S15	13	73	100							
	40		38.5', grades yellowish brown, wet.		30									
	41			X S16	43	29	100							
	42				5									
-29.04	43		CLAYEY SAND (SC), medium dense, olive gray, moist, fine, with iron-oxide staining.		17									
	44		Poorly graded SAND with SILT (SP-SM), very dense, dark yellowish brown, wet, fine, slightly cemented, with iron-oxide staining.		12									
	45			X S17	20	50/5.5"	100							
	46				50/5.5"									
-33.04	47			X S18	18	50/5.5"	100		21.6	131.7			PA	
	48				50/5.5"									
	49				50/5.5"									
-35.04	50													
	51													
-37.04	52			X S19	18	73	100							
	53				31									
	54			X S20	42	50/6"	100							
	55				35									
			Grades very fine.		50/6"									
-41.04														
-43.04			CLAYEY SAND (SC), very dense, grayish brown, moist, very fine.	U21			63		20.2	131.4			CU PA	

(continued)



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BORING RECORD

DIST. 4 COUNTY S.F. ROUTE 101 POSTMILE 8.3/9.4

HOLE ID
MPTNB-R1

EA
163701

PROJECT OR BRIDGE NAME
Doyle Drive Replacement Project

BRIDGE NUMBER 34-0163R PREPARED BY T. Carroll

DATE
11-3-08

SHEET
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Figure

ELEVATION (ft)	DEPTH (ft)	Material Graphics	Description	Sample Location	Sample Number	Blows per 6 In	Blows per Foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
-45.04	56		CLAYEY SAND (SC), very dense, grayish brown, moist, very fine.												
-47.04	58		Grades with heavy iron-oxide staining.		S22	24 22 26	48	100							
-49.04	60		Borehole terminated at a depth of 59 feet on 12/4/2007.												
-51.04	62		See Boring Record Legend for soil classification chart and key to test data and sampler type.												
-53.04	64														
-55.04	66														
-57.04	68														
-59.04	70														
-61.04	72														
-63.04	74														
-65.04	76														
-67.04	78														
-69.04	80														
-71.04	82														
-73.04	84														
	85														



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DIST. 4	COUNTY S.F.	ROUTE 101	POSTMILE 8.3/9.4	EA 163701	
PROJECT OR BRIDGE NAME Doyle Drive Replacement Project					
BRIDGE NUMBER 34-0163R		PREPARED BY T. Carroll		DATE 11-3-08	SHEET 3 of 3

Figure